

WHAT IS CLAIMED IS:

1. An ink for ink jet comprising:

a first solution containing a solvent which is polymerizable in the presence of an acid and a colorant dispersed in said solvent; and

a second solution containing a photo-acid generating agent which is capable of generating an acid as it is irradiated with light and prepared separate from said first solution, said second solution being preserved separate from said first solution.

2. The ink according to claim 1, wherein said first solution further comprises a basic compound and/or a basicity-adjusting compound.

3. An ink jet recording apparatus comprising:

a color ink container having a capacity V1 accommodating therein a solvent which is polymerizable in the presence of an acid and a colorant dispersed in said solvent;

a reaction liquid container having a capacity V2 ( $V2 < V1$ ) accommodating therein a reaction liquid comprising a solvent, and a photo-acid generating agent which is dissolved in said solvent and capable of generating an acid as it is irradiated with light;

a stirring container mixing said color ink and said reaction liquid at a mixing ratio of S1:S2 (said color ink : said reaction liquid) to prepare a recording ink;

a color ink supply means feeding said color ink from said color ink container to said stirring container;

5 a reaction liquid supply means feeding said reaction liquid from said reaction liquid container to said stirring container;

an ink jet recording head ejecting said recording ink to a recording medium; and

10 a supply tube feeding said recording ink to said recording head.

4. The ink jet recording apparatus according to claim 3, wherein said reaction liquid container is kept at a temperature lower than that for keeping said color ink container.

15 5. The ink jet recording apparatus according to claim 3, further comprising a cooling fan for cooling said reaction liquid container.

20 6. The ink jet recording apparatus according to claim 3, wherein a ratio between a capacity (V2) of said reaction liquid container and a capacity (V1) of said color ink container ( $V2 < V1$ ) is smaller than the mixing ratio ( $S2/S1$ ) between said reaction liquid and said color ink in said stirring container.

25 7. The ink jet recording apparatus according to claim 3, further comprising an image data-storing/processing device, a recording ink residue-detecting monitor detecting the quantity of residual

recording ink remaining inside said agitating  
container, and a control device, wherein image  
information and residual ink information are fed  
respectively from said image data-storing/processing  
5 device and said ink residue-detecting monitor to said  
control device, said image information and said  
residual ink information being subsequently fed to said  
color ink supply means as well as to said reaction  
liquid supply means.

10           8. The ink jet recording apparatus according to  
claim 3, wherein said color ink and said reaction  
liquid are fed to said stirring container at a ratio  
enables said recording ink to contain said photo-acid  
generating agent at a ratio of 1 to 20% by weight.

15           9. The ink jet recording apparatus according to  
claim 3, wherein said color ink further comprises a  
basic compound and/or a basicity-adjusting compound.

20           10. The ink jet recording apparatus according to  
claim 9, wherein said color ink contains a basic  
compound and/or a basicity-adjusting compound at a  
ratio of 0.1 to 0.8% by weight.